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Roadless Area Conservation

National Forest System Lands in Idaho

ROADS SPECIALIST REPORT

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ABSTRACT

This report describes the road component of the National Forest Transportation System, and how it relates to the physical, biological, social, and economic factors related to the State of Idaho's Petition. The report draws heavily on the Roads Specialist Report from the 2001 Roadless Area Conservation EIS (Krause 2000). The road system serving National Forest System lands is described and characterized using both historic data and data collected for this analysis. The affects of restrictions on road construction and reconstruction on the management and operation of the road system are discussed. Reasonable projections are made that display the affects of the proposed State Petition and alternatives with the combined effects of other national policy initiatives and regional planning efforts.

Implementing the State's Petition in inventoried roadless areas will have little effect on existing access. Approximately 3 miles of road per year may be built or reconstructed above current levels (2001 Roadless Rule) within the 9.3 million acres of inventoried roadless. Road development under the Existing Plans Alternative, would construct or reconstruct about 10 miles per year more than the State's Petition. Due to the compensating effects of road decommissioning, there would be no net increase in road mileage under the 2001 Roadless Rule; only 1 mile per year increase with the State Petition; and 10 miles per year increase with the Existing Plans Alternative. None of the alternatives will have a measurable impact on access to NFS lands or on rural highway access when considered on a state or national scale.

ANALYSIS

Methodology

The effects on the NFS road system and Forest Service roads program are generally displayed in terms of miles constructed or reconstructed and those miles that would be prohibited as a result of the action alternatives. Effects of roads on specific resources are analyzed in the appropriate section of Chapter 3 in the EIS and in other resource specialist reports.

Historic trends and data collected from Forest Service field units was used to characterize the roads program both in the near term (2007 to 2011) and to estimate future program levels over the next fifteen years.

Definitions of common terminology were coordinated between Forest Service policy efforts for the 2001 Road Policy, 2005 Planning Regulations and the 2001 Roadless Rule. However, as a result of the 2005 Travel Management Policy, the terms "unclassified

road” and “classified road” are no longer being used. Updated definitions are found in the 2005 Travel Management Policy (36 CFR 212.1) and the glossary.

Assumptions

- It is reasonable to expect that the historic trends for developing IRAs established over the past 10 years will continue into this century. It is estimated that in IRAs less than 5% of the total roadless acres have been roaded.
- Travel Analysis for the purpose of route designation is beyond the scope of this EIS and will be addressed in a separate planning process.
- Road development estimates for the Existing Forest Plans are based on a five year projection from the 2001 Roadless Area Conservation EIS (2000 to 2004). Average annual mileages were adjusted for National Forests with Revised Forest Plans, but are projected to stay similar into the future. (Includes new construction, reconstruction and temporary road construction)
- Road decommissioning is assumed to be limited by available funding tied to timber harvest levels. Decommissioned miles for the Existing Plans and State’s Petition Alternatives are assumed to sum the annual construction rate for temporary roads plus the projected rate for the 2001 Roadless Rule. The Existing Plans Alternative will be able to fund an additional mile of decommissioning per year over the State Petition due to the greater estimated harvest level.
- Road development estimates for the 2001 Roadless Rule were estimated from a data call from the Idaho National Forests in May 2007 (2001 to 2006 accomplished & 2007 to 2011 projected). Under the 2001 Roadless Rule, no new miles of road would be developed in IRAs to support timber removal.
- Road development estimates for the State’s Petition Rule were calculated by adjusting the estimated mileage for the Existing Plans by a ratio of the number of acres proposed in the General Forest Theme.
- It is assumed that areas of high geothermal potential in the IRAs will see limited road development within the planning horizon due to the availability of geothermal potential in more accessible areas.
- Roads developed to support timber cutting will generally be closed after the entry. Temporary roads constructed for timber cutting will be decommissioned as part of the contract requirements.
- NFS roads, represent approximately 12% of rural public roads nationally (Krause 2000). NFS roads in Idaho represent 1% of rural public roads nationally and 34% of the rural public roads in Idaho. Road construction in inventoried roadless areas under the Existing Plans Alternative in the next 15 years represents less than 0.1% of the rural public roads in Idaho (Coladner 2007). There is no discernable difference

between any of the alternatives in their effects on State of Idaho or national rural public road access.

ASSUMPTIONS FOR “STATUS QUO” ROAD SYSTEM

- The Forest Service appropriated road budget would remain flat
- Funding is a limiting factor to implementing road policy and management direction.
- Decommissioning would continue at the recent historic rate
- All of the unauthorized roads would be identified as unneeded.

The revision of the Planning Regulations sets the planning framework for considering the road network necessary for sustainable multiple-use management. A roads analysis process at the land management plan level is required by the 2001 Roads Policy and has changed the current policy emphasis from road development to road maintenance. This analysis, required by the 2001 Roads Policy, examines NFS roads using public involvement and the best available science while considering effects on social, economic, and environmental sustainability. Road management decisions must comply with existing laws such as the Clean Water Act, the Endangered Species Act, Highway Safety Act, and be consistent with land and resource management plans.

It is not possible to predict the outcome of NFS roads on individual national forests from decisions that will be made at the land management plan and project level from the combined implementation of the Planning Regulations, the 2001 Roads Policy, the 2005 Travel Management Rule, and the alternatives considered in this EIS.

The 2005 Transportation Management Rule requires each National Forest System unit to designate roads, trails and areas for motorized use, by class of vehicle and if appropriate by time of year. Motor vehicle use off of the designated system will be prohibited unless authorized by listed exceptions. Travel Planning for the purpose of route and area designation is currently ongoing for all Idaho National Forests and will feature extensive public involvement. This process for route designation is beyond the scope of this EIS and will be addressed in Travel Planning. For more information on route designation see the Travel Management web site at:

<http://fsweb.wo.fs.fed.us/rhwr/ohv>

It is possible to estimate reasonably foreseeable trends describing the future amount and condition of roads under Forest Service jurisdiction. It is anticipated that much of the existing road system will continue to be needed for management since the road network has continued to grow (Krause 2000). Decisions about whether a road is needed will be driven by the Forest Service's ability to meet land management plan objectives within the funding received, along with safety and environmental protection standards. Available funding will limit the road system the Forest Service can reasonably operate and maintain. The actual amount of NFS roads closed, decommissioned, open to public travel, the standard maintained, and the time to reach a minimum amount of roads needed to best serve current and anticipated management

objectives and public uses is dependent on many factors including budgets, environmental risks, capabilities of the land, and use. Management of NFS roads will comply with applicable law, regulation, and policy.

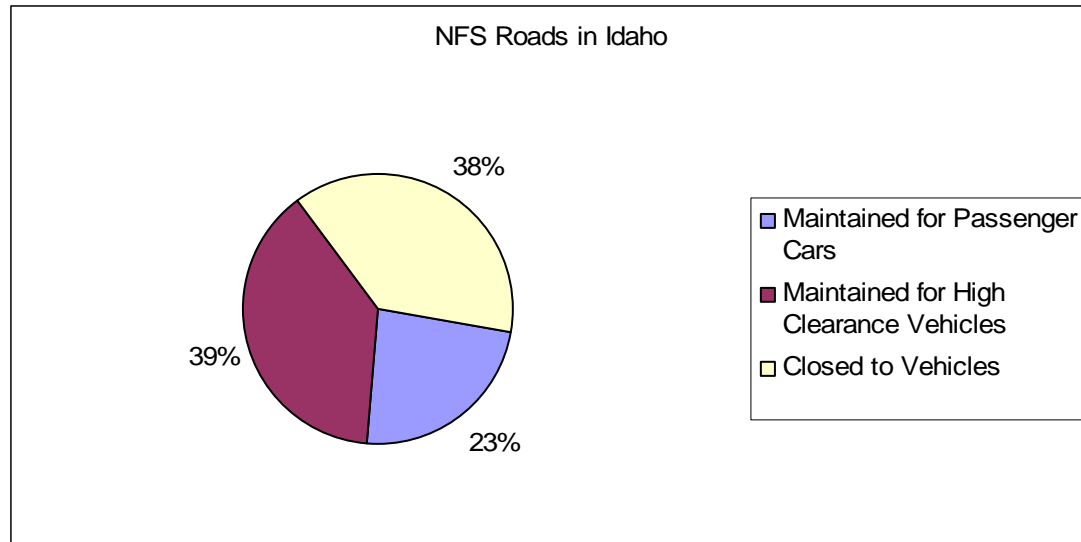


Figure 1. National Forest System Roads in Idaho – Current Management from FY 2006 RAR

At current funding levels, critical maintenance needs are frequently not met. The Forest Service would make little progress to reduce its estimated 0.3 billion dollar capital improvement and deferred maintenance backlog in Idaho over the next 15 years. Roads may not be maintained at standards that would accommodate the appropriate balance between projected demand for access to NFS lands and environmental protection. Decommissioning of unneeded roads would progress at a moderate pace compared to current trends. Some roads would be impassable due to lack of maintenance.

Information Used

The data used in this analysis came from two primary sources. First, the road program planned for the years 2007 to 2011 came from the data based developed for this project as a result of several data calls to Forest Service field units. Secondly, historic data on road program (budget and activities) came from historic Forest Service business reports and other internal documents.

AFFECTED ENVIRONMENT

The Forest Service maintains and administers approximately 386,000 miles of roads on NFS lands, 33,800 miles of these are in the State of Idaho. In the Eastern United States, the Weeks Act of 1911 (Public Law 61-435) allowed the Forest Service to purchase lands

to protect the headwaters of navigable streams, and the Clark-McNary Act of 1924 permitted the Agency to purchase all types of forestlands. Many roads already existed on the lands purchased by the Forest Service in the East. Roads also existed on lands reserved as national forests in the 19th and early 20th Century in the West.

Before World War II, roads were constructed on NFS lands primarily for fire and conservation activities. From 1944 until the mid to late 1980s, the majority of the roads on NFS lands were constructed to support timber harvest activities. Figure 2 shows that in 1944, the Forest Service estimated there were 100,000 miles of roads under its jurisdiction and that there has been a steady increase in road miles since that time. Through the 1990s, the net increase in road miles is largely due to inventorying existing NFS roads.

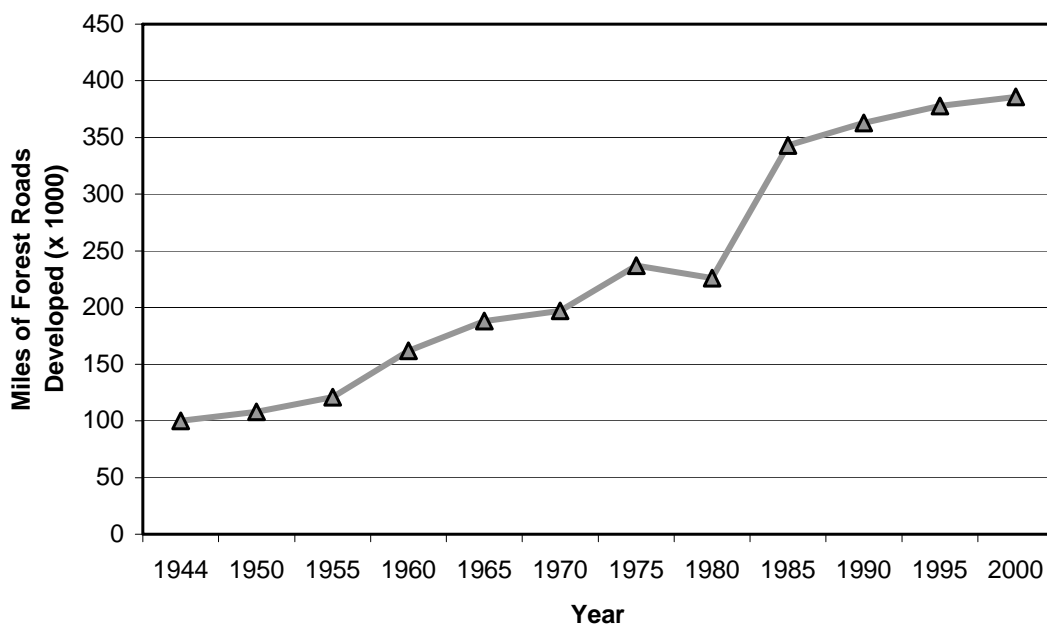


Figure 2. Miles of forest roads constructed from 1944 to the late 1990s.

(Krause 2000)

Today, NFS roads serve a wide variety of forest users and join with County, State, and national highways to connect rural communities and urban centers with NFS lands. Recreation is the single largest use or activity supported by the NFS roads, accounting for approximately 90% of the daily traffic. Administrative use (9%) and commercial use (1%) make up the balance (Coghlan and Sowa 1998).

Road Maintenance – Some NFS roads are maintained to accommodate low-clearance passenger cars and others for high-clearance vehicles such as sport-utility vehicles, pickups, and jeeps (Figure 3). Within the State of Idaho, about 7,541 miles, or 22%, of NFS roads are maintained for low-clearance passenger cars. Another 13,764 miles, or

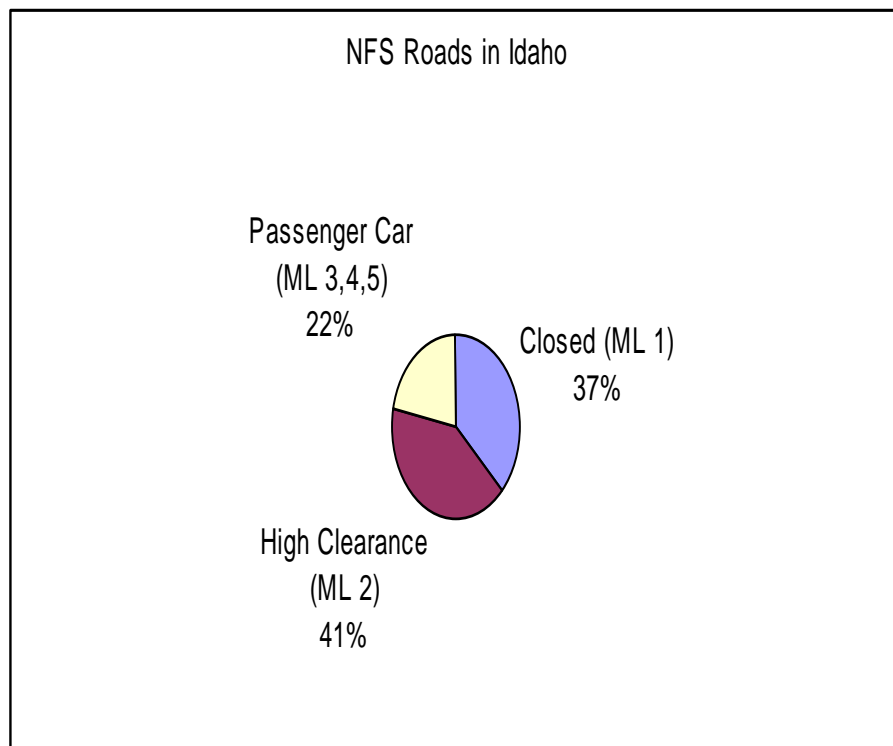
41%, of NFS roads are designed and maintained for high-clearance vehicles. The remaining 12,506 miles, or 37%, are single-use roads (for example, fire access) that are generally closed after their initial use and kept closed between uses (FY 2006 RAR).

The construction or reconstruction of NFS roads is typically paid for by the use that most benefits from the initial access. Examples include timber harvest by timber purchasers, mining operations by mining claimants, and special use permit access by permittees. However, some roads are built using congressionally appropriated dollars such as roads for recreation, administrative access, and ecosystem restoration. The Forest Service is responsible for planning, design, and construction oversight and often retains long-term jurisdiction, including maintenance and operational responsibilities, for roads constructed on NFS lands. Typically roads constructed under permit (mining, special use) are operated and maintained by the permittee and are decommissioned under terms of the permit once the access need has terminated, however when the road is needed to meet other access objectives the Forest Service may accept long-term responsibility. Roads constructed to access private lands within or adjacent to National Forest System lands, are typically the property and responsibility of the land owner, however when it is in the interest of the Forest Service, the agency may accept or share responsibility for operation and maintenance. Each new mile of NFS road competes for limited road maintenance funding. Annual maintenance on new roads costs, on average, approximately \$1,500 per mile. In fiscal year 2006, the Forest Service received less than 20% of the estimated funding needed to maintain its existing road infrastructure (Moore 2007).

The Agency's road maintenance activities are focused on resource protection, public health and safety considerations and mission related activities. Figure 4 shows the proportions of these annual road maintenance needs for Idaho National Forests. A 2006 survey of road maintenance and capital improvement needs within the Forest Service showed an annual maintenance budget requirement of \$568 million and a combined capital improvement and deferred maintenance backlog of \$4 billion. Figure 5 illustrates that 48% of the annual road maintenance costs, is associated with resource protection activities. The total fiscal year 2006 road maintenance budget of \$114 million, will meet less than 20% of the Agency's annual needs and less than 50% of identified critical needs. Each year's unmet maintenance increases the backlog as roads deteriorate and the cost of repairs continues to rise. (Moore 2007)

In fiscal year 1999, the Forest Service began a 5-year initiative to inventory and conduct condition surveys on its 386,000 miles of roads. Annual condition surveys on a sample of the road system continue and are used to assess key performance measures for road maintenance.

The Forest Service also receives benefits from commercial use of its roads. A provision of the 1964 Roads and Trails Act, allows road use agreements, timber sale contracts, special use permits, mineral leases, and other cooperative agreements to accomplish road reconstruction and maintenance, or funds may be collected for maintenance.



Road Maintenance	Miles
Passenger Car (ML 3,4,5)	7,541
High Clearance (ML 2)	13,764
Closed to Vehicles (ML 1)	12,506
Total ^a	33,811

^a Does not include unauthorized roads.

Figure 3. Types of vehicle use on National Forest System roads in Idaho.
(USDA Forest Service 2007)

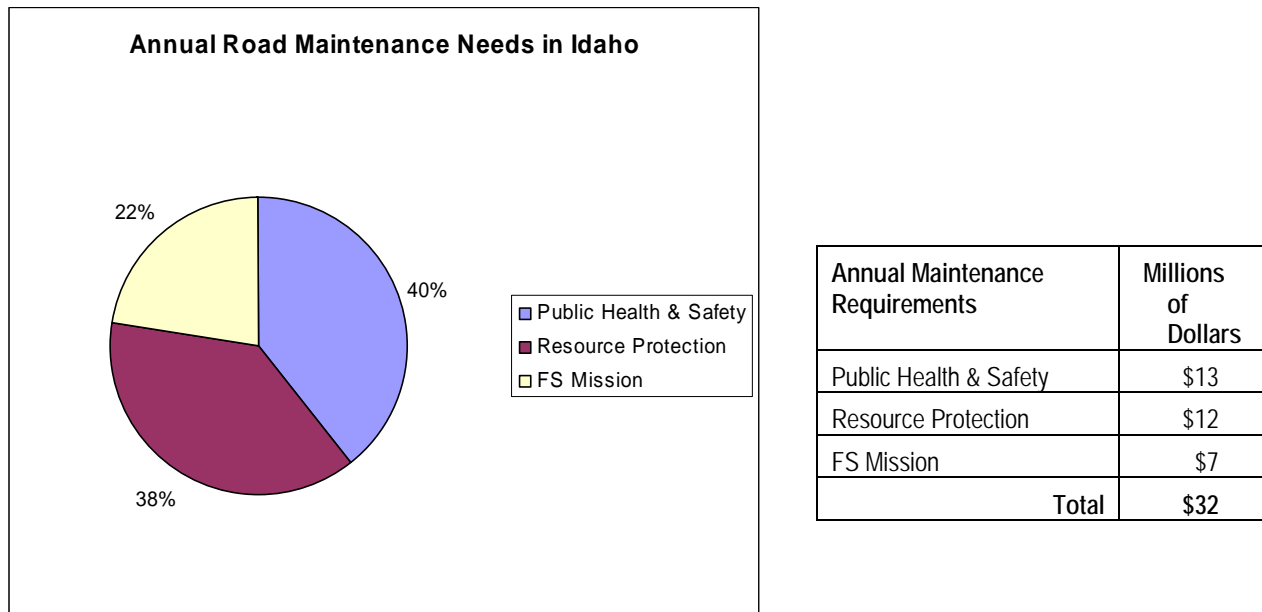


Figure 4. Annual road maintenance needs on National Forest System roads in Idaho.
(USDA Forest Service 2007)

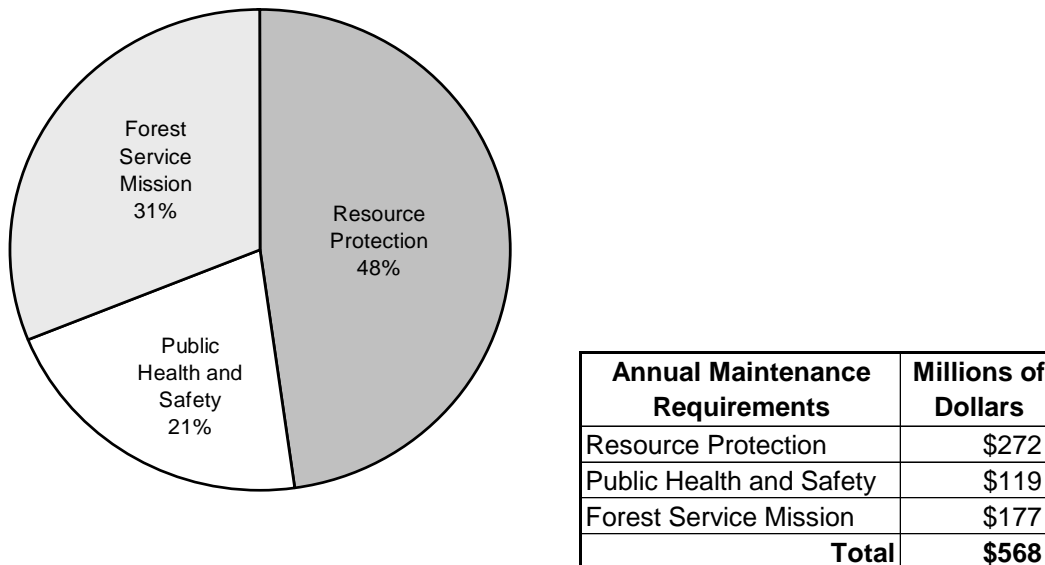


Figure 5. Annual road maintenance costs for all Regions.

(Krause 2000)

Although the amount of reconstruction and maintenance is commensurate with the commercial use, other users may benefit (Krause 2000).

Figure 6 compares the historical trend in funding for NFS roads and use (vehicles per day). Funding peaked between 1965 and 1985 when the Forest Service timber program contribution to road construction, reconstruction and maintenance was high. Timber funding combined with an appropriated road budget of three times today's funding levels enabled the Forest Service to maintain NFS roads to the safety and environmental standards that were acceptable at that time. During these years the NFS road system grew from approximately 200,000 miles to approximately 350,000 miles, a 75% increase. When taken together increased use and reduced funding, over the past 15 years, have resulted in NFS roads deteriorating and maintenance backlogs increasing to the 2006 estimated 4 billion dollars. (Moore 2007)

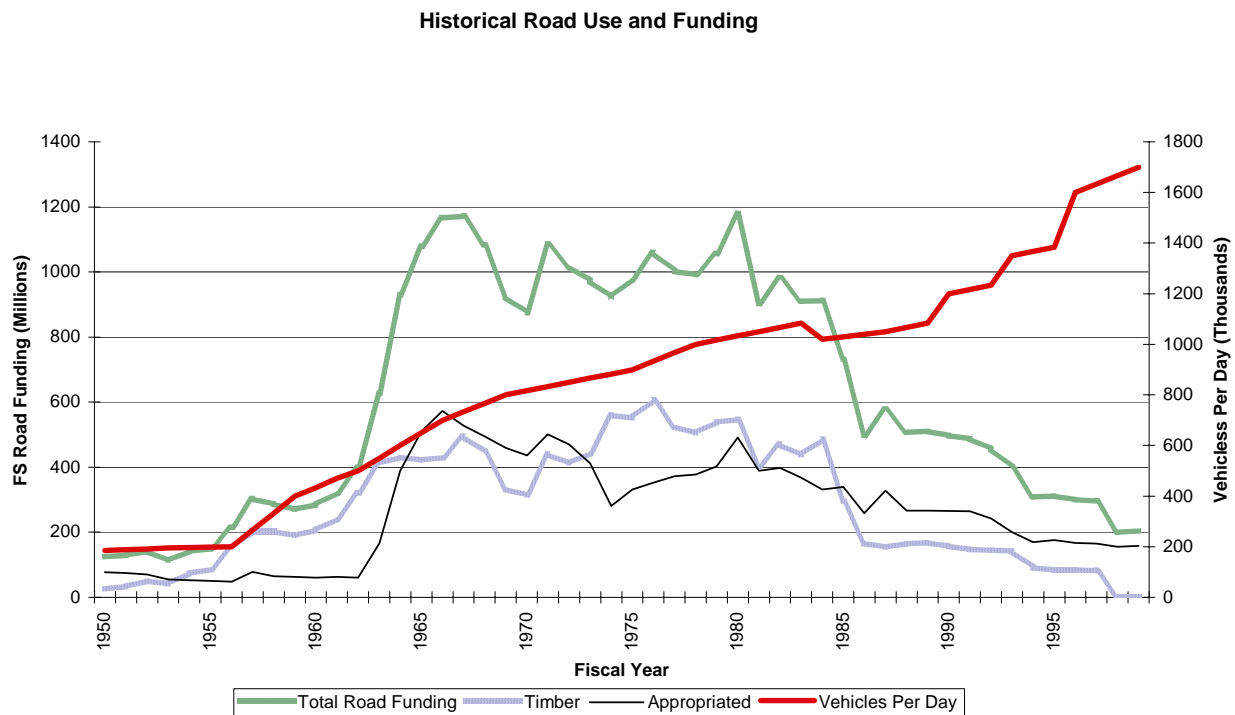


Figure 6. Historic road funding compared to use.

(Moore, 2007)

Definitions and their use was a common topic in the public comment. The 2005 Travel Management Rule (36 CFR 212.1) uses the following definitions.

Road – A motor vehicle route over 50 inches wide, unless identified and managed as a trail.

Trail – A route 50 inches or less in width or a route over 50 inches wide that is identified and managed as a trail.

Forest road or trail – A road or trail wholly or partly within or adjacent to and serving the National Forest System that the Forest Service determines is necessary for the protection, administration, and utilization of the National Forest System and the use and development of its resources.

National Forest System road – A forest road other than a road which has been authorized by a legally documented right-of-way held by a State, County, or other public road authority.

National Forest System trail – A forest trail other than a trail which has been authorized by a legally documented right-of-way held by a State, county, or other public road authority.

Classified roads and Unclassified roads – Terms are no longer used.

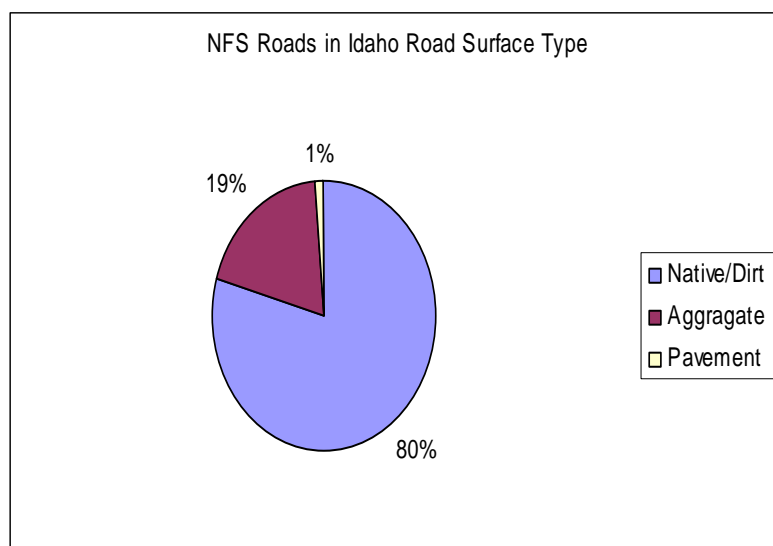
Unauthorized road or trail – A road or trail that is not a forest road or trail or a temporary road or trail and that is not included in a forest transportation atlas.

Temporary road or trail – A road or trail necessary for emergency operations or authorized by contract, permit, lease, other written authorization that is not a forest road or trail and that is not included in a forest transportation atlas.

There are approximately 77,100 miles of roads on NFS lands that are not under Forest Service jurisdiction, 10,000 miles of which are in the Idaho (USDA Forest Service 2007). These roads are under the jurisdiction of public road agencies (State, Counties), or private parties (adjacent private landowners, mining claimants). The exact mileage of unauthorized roads on NFS lands in Idaho is unknown.

While the Forest Service manages approximately 413 miles of paved roads in Idaho, the majority of NFS roads maintained for passenger cars (9,568 miles) have gravel or native material surfaces. About 26,815 miles are surfaced with native, on-site materials. Figure 7 displays the percentages of these road surfaces. Many national forest visitors travel single lane, gravel-surfaced roads that are maintained for low-clearance passenger vehicles. Figure 8 shows a typical passenger car road on NFS land.

The Forest Service uses five categories to identify road maintenance guidelines based on road management objectives. These categories are called “maintenance levels”, with “maintenance level 1” receiving the least maintenance and “maintenance level 5” having the highest maintenance standards. With each maintenance level guidelines are established for the amount and type of maintenance based on parameters such as service life, traffic type, traffic volume, travel speed, traffic management strategy, user comfort, user safety and local conditions. Forest Service policy direction for maintenance levels 1 through 5 can be found in FSH 7709.58.



Road Surface Type	Miles
Paved	413
Gravel	6,583
Native Material (Dirt)	26,815
Total ^a	33,811

^a Does not include unauthorized roads.

Figure 7. Types of road surfaces on roads on National Forest System lands in Idaho.

(USDA Forest Service 2007)



Figure 8. Typical National Forest System gravel road.

(Krause 2000)

Road Construction and Decommissioning – Over the past decade and a half, NFS road construction has declined by 90%, from a high of 1,315 miles in 1991 to 129 miles in 2006. The majority of these roads were built to support timber harvest. During the period of 1991 to 1999, about 2,660 miles of road were decommissioned each year (Krause 2000). From 2000 to 2006, about 1560 miles of road were decommissioned each year. More than 13 miles of road are decommissioned for every mile of new road constructed each year. (RAR 2000 to 2006)

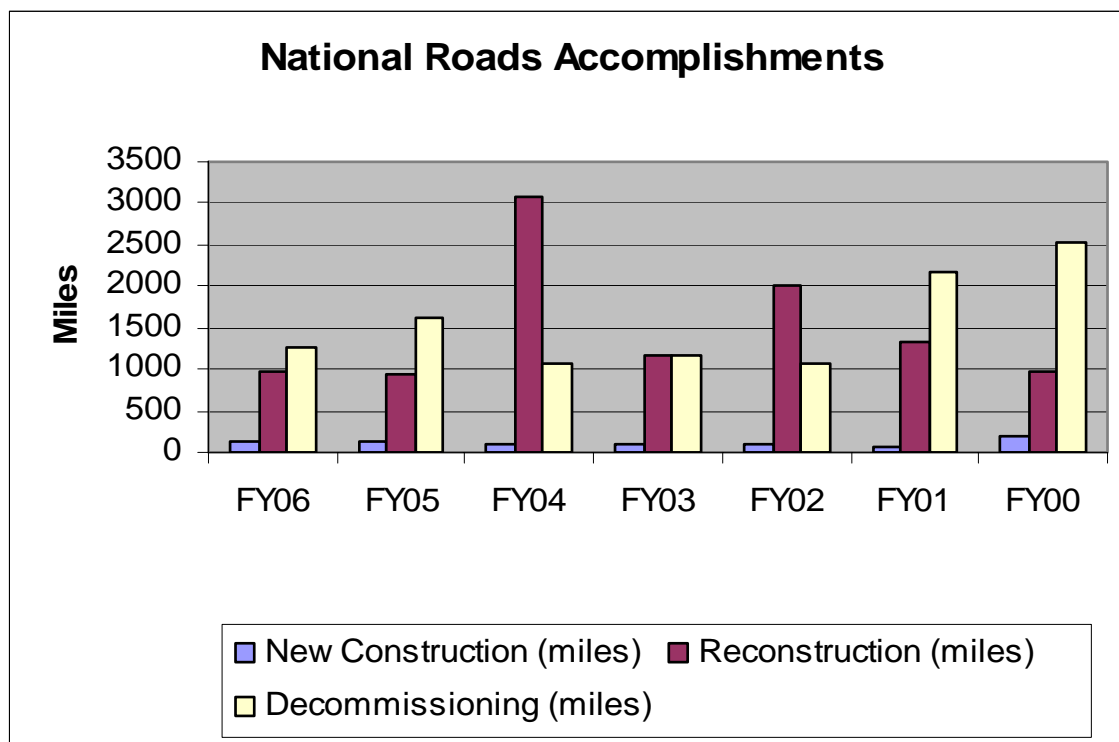


Figure 9 Road Accomplishments, All Regions (RAR 2000 to 2006)

In the state of Idaho, the average rate of road decommissioning from 2001 to 2006 was 230 miles per year. For these years, an average of 29 miles of road were decommissioned for every mile of new construction each year.

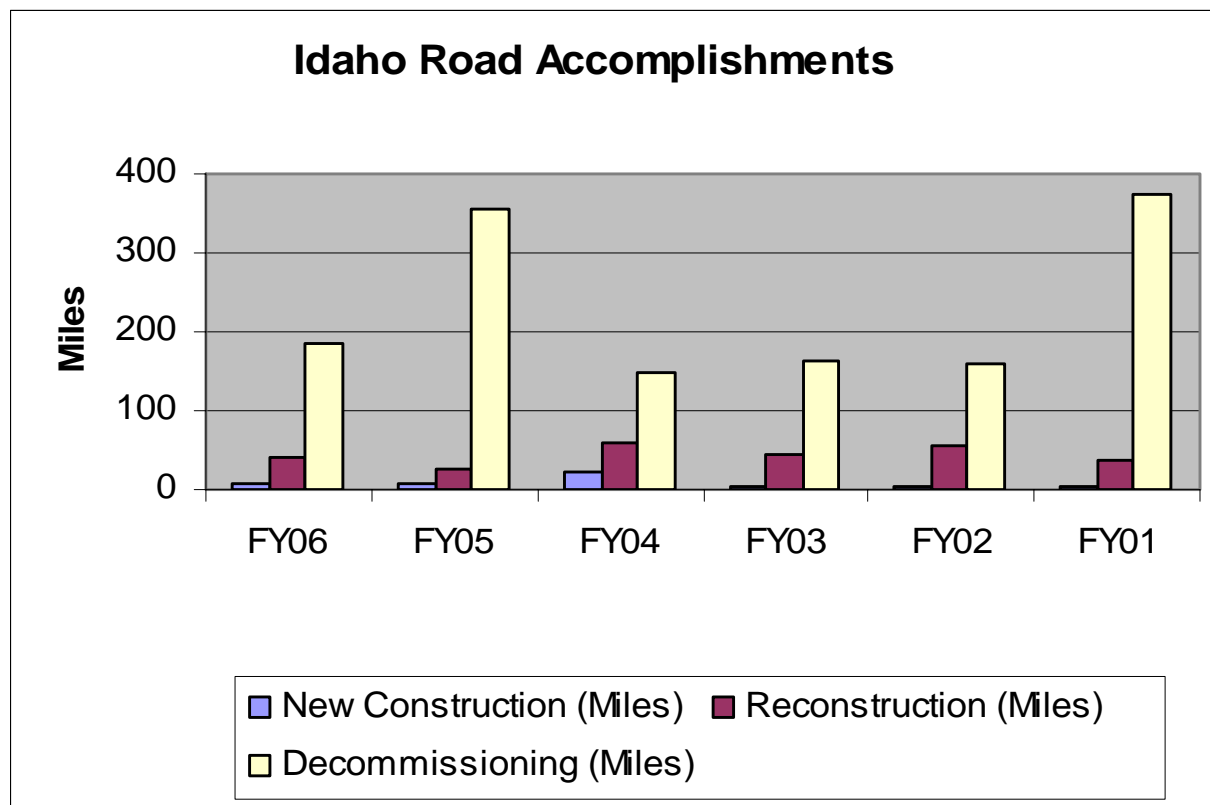


Figure 10 Road Accomplishments, Idaho Forests. (RAR 2001 to 2006)

Table I. Road Accomplishments by fiscal year.

	FY06	FY05	FY04	FY03	FY02	FY01	FY00
Idaho Forests							
New Construction (Miles)	7	7	21	5	4	5	
Reconstruction (Miles)	41	26	58	44	57	39	
Decommissioning (Miles)	184	355	146	161	158	374	
Forest Service Total							
New Construction (Miles)	129	142	100	89	89	69	181
Reconstruction (Miles)	978	936	3071	1181	2020	1322	962
Decommissioning (Miles)	1262	1607	1073	1157	1082	2165	2538

Reconstruction and construction miles accomplished are from capital improvement and maintenance appropriations, deferred maintenance funds, purchaser election inventory revisions, new construction and non-USDA Forest Service funds. Decommissioned miles are regardless of funding source.

The cost of new road construction varies with road standards and local conditions, from a few thousand dollars per mile up to \$150,000 or more per mile. The average range is typically \$50,000 to \$100,000 per mile. Heavy reconstruction of existing roads to meet current design standards costs approximately \$45,000 per mile. (Hughey 2007)

Roads are added to NFS lands when the Forest Service:

1. constructs new roads;
2. acquires new lands through purchase or land exchanges, which often contain roads;
3. identifies unauthorized roads that are permanently needed.

Beginning in the early 1990s, many planning decisions, such as those associated with the Northwest Forest Plan, identified the need to enhance watershed health. Because of planning efforts and national regulatory and policy changes such as the Clean Water Action Plan, the Forest Service increased efforts to decommission roads when they were no longer needed and as funding allowed.

Road decommissioning involves using various levels of treatments to restore unneeded roads to a more natural state, to mitigate environmental damage and restore hydrologic function. Treatment options might include blocking the entrance, water barring, removing culverts, reestablishing drainage ways, removing unstable fills, pulling back road shoulders, restoring natural contours and slopes, or other methods designed to meet specific conditions and objectives associated with the unneeded road. It includes conversion of a road to a designated trail. The cost of decommissioning varies with the treatment and local conditions, from a few hundred dollars per mile up to \$80,000 or more per mile. The average range is typically \$5,000 to \$10,000 per mile. (Hughey 2007)

The Forest Service constructs, reconstructs, and maintains roads on NFS lands to provide needed access for implementing land management plan goals and objectives. As these objectives and goals change, road management objectives also change. It is through road management objectives (FSM 7712.31) that design standards, maintenance levels, and traffic management requirements, such as seasonal closures are established. As land management goals and objectives change, so do the need for new access and the objectives for managing existing access. The Forest Service manual direction is as follows:

FSM 7712.31 - Road Management Objectives

Establish the specific intended purpose (FSM 7701, para. 7), based on management direction, of the new project or projects. Document this purpose by developing a road management objective that contains design criteria (FSM 7720) and operation and maintenance criteria (FSM 7730.3). The document shall be signed by a line officer when approved, and retained as a permanent record. Document arterial and

collector roads individually; however, similar local roads may be grouped on one document.

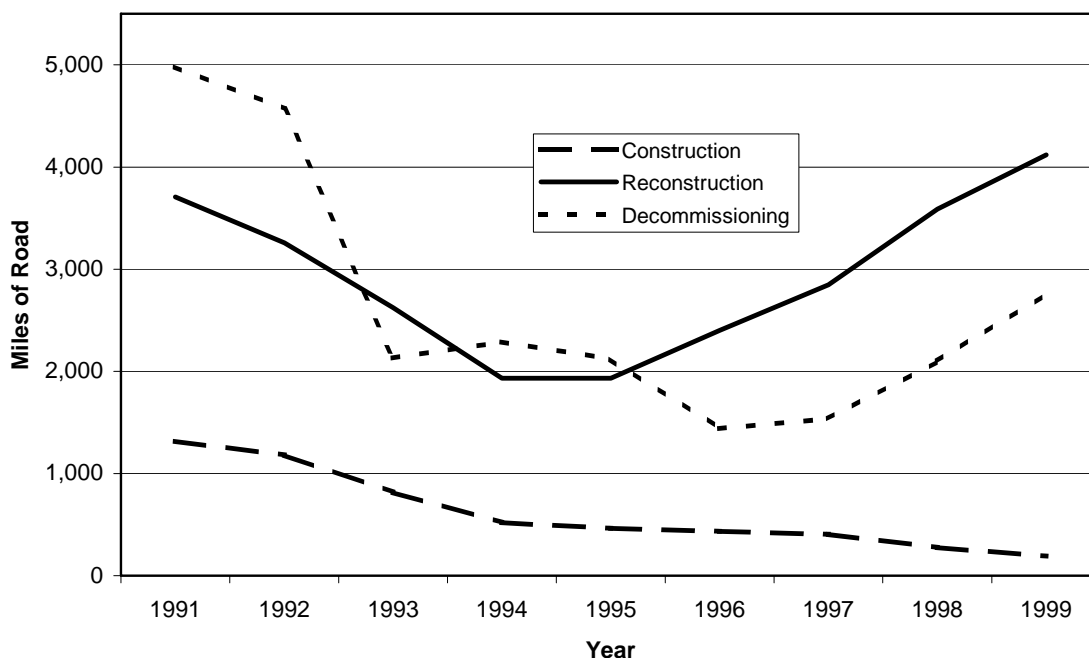


Figure 11. Trends in road construction, reconstruction, and decommissioning for National Forest System roads.

(Krause 2000)

On January 28, 1998, in an Advance Notice of Proposed Rulemaking (ANPR) (63 FR 4350), the Forest Service announced its intent to revise regulations concerning management of NFS roads. Simultaneously, the Forest Service published an Interim Roads Rule (36 CFR Part 212) to temporarily suspend permanent and temporary road construction and reconstruction in certain unroaded areas of NFS lands. The purpose of the Interim Roads Rule was to take a “time out” for 18 months while the Forest Service developed a new long-term road management policy and new analytical tools to provide a more ecological approach to analyzing existing and future road needs. In August 1999, the “Roads Analysis: Informing Decisions about Managing the National Forest Transportation System” was made available to Forest Service managers to use when making road management decisions.

The 2001 Roads Policy required that the findings and recommendations of a science-based roads analysis be considered when doing land management and project planning. Road management objectives are developed during land management and project level planning and these decision-making processes can be informed by a science-based roads analysis.

Management of existing NFS roads under the 2001 Roads Policy, established a change in emphasis from road development to road management. The 2005 Travel Management Rule (36 CFR 212) built on this direction by also requiring each Forest

Service unit to designate roads, trails and areas for motor vehicle use, by class of vehicle and time of year. A discussion of the combined cumulative effects of these and other Forest Service planning and policy initiatives is contained later in this report.

National Forest System roads are generally those long term roads that are needed to meet the goals and objectives established in land management plans that require permanent, long-term access. Other roads authorized by the Forest Service also include those public roads that provide primary access into and through NFS lands and those privately owned roads that access private lands within and adjacent to NFS lands. With the exception of private roads, these forest roads are those roads to which State traffic regulations generally apply and are designed and maintained for “highway legal” motor vehicles though use by other classes of recreational vehicles might be allowed.

Temporary roads are authorized under contracts and permits, such as timber sale contracts, special use permits, oil and gas exploration permits, facility construction contracts, or they may be constructed by the Forest Service for administrative access. These roads are needed for a short time to meet a one-time access need, usually for 1 and not more than 10 years. The Forest and Rangeland Renewable Resources Planning Act of 1974 (as amended) generally requires temporary roads be closed and revegetated within 10 years. In general, the Forest Service decommissions temporary roads within one year after the need for access has terminated.

Unauthorized roads are those roads that exist on NFS lands without the Agency’s expressed permission. They include remnants of historic uses, such as old logging and mining roads, user-created roads due to repeated travel by recreational vehicles off designated roads and trails, and old temporary roads that were not decommissioned. The 2001 Roads Policy proposed a review of all roads to determine if they are needed as a road, a trail or need to be decommissioned. It is likely that some unauthorized roads will continue to be created in the future though less frequently than in the past due to the 2001 Roads Policy, the 2005 Travel Management Rule and other policy changes.

Roads can have both beneficial and negative effects. On the benefit side, roads provide access for multiple uses such as timber harvest, grazing, mining, fire suppression, forest management, ecosystem restoration, research, monitoring, recreation, subsistence uses, emergency rescue, and to meet other access needs. Roads provide access to private lands within and adjacent to NFS lands, and roads can have historic and cultural value. Non-access related benefits include providing edge habitat and firebreaks. Properly constructed or reconstructed roads can mitigate negative effects of past roading on water quality and riparian habitats (Krause 2000)

Roads may have undesired and negative effects on hydrology, geomorphic features such as debris slides, sedimentation, a source of human-caused fire, habitat fragmentation, predation, road kill, invasion by exotic species, dispersal of pathogens, some recreational experiences, water quality and chemical contamination, soil productivity and biodiversity (USDA Forest Service 2000h).

All management activities associated with NFS roads are required to comply with relevant State and Federal statutes such as the Clean Water Act, NEPA, and Endangered Species Act (ESA). In addition, it is the Agency's policy to use the best available scientific information and best management practices (BMPs) for planning, designing, constructing, and maintaining roads regardless of where the road is located. Implementation of these policies can minimize, but not eliminate, some of these adverse environmental effects. Within the context of the alternatives, specific effects of road construction and reconstruction on individual resources are discussed later in this chapter. A key underlying assumption to all effect analyses are that road impacts are proportional to the miles of construction and reconstruction. Therefore, it is important that differences in road construction and reconstruction between alternatives are discussed. See the specialist report for physical resources for a detailed discussion on BMPs.

The criteria used during RARE I and II allowed the presence of some roads in areas that were inventoried for Wilderness consideration (Krause 2000). Subsequent roadless area inventories used the same criteria. Today, approximately 1800 miles of roads currently exist on less than 5% of the land area in inventoried roadless areas in Idaho (USDA Forest Service 2007). Some of these roads pre-date the inventories, while others have been constructed where land management plans have allowed development in inventoried roadless areas.

RESULTS (PART OF ENVIRONMENTAL CONSEQUENCES)

COMMON TO ALL ALTERNATIVES

Road Maintenance - The prohibitions on road construction and reconstruction in the 2001 Roadless Rule and State's Petition Alternatives do not restrict or limit road maintenance. All activities that are needed to meet a road's current road management objective would be allowed. However, if it were desirable to make that road two-lane, and pave it to accommodate an increased need for access, those improvements would not be allowed because this is reconstruction, which is prohibited. If a road is proposed for reconstruction to protect an endangered run of salmon in a nearby stream and reduce sedimentation, then that would be allowed in some areas with the State Petition and all areas with the 2001 Roadless Rule. In general, those activities needed to maintain a road's current design standard, maintenance level or traffic service level would be allowed. Maintenance activities needed to meet new environmental or safety requirements resulting from law, regulation or policy would also be allowed.

Timber harvest contracts and other commercial activities provide a means of accomplishing needed road reconstruction and maintenance. As a requirement of a timber sale contract, special use permits, or other contracts, safety and environmental problems on existing NFS roads would be corrected to the extent necessary for executing the permit or contract. Road maintenance is performed based on the level of use by the commercial user, or funds are collected for later maintenance by the Forest

Service. This reconstruction and maintenance provides an indirect benefit to other road users and contributes to the accomplishment of Forest Service management objectives including elimination of backlog maintenance and capital improvement needs. As timber harvest is reduced in 2001 Roadless Rule and State's Petition Alternatives these direct and indirect benefits would be forgone.

Any appropriated funds for road construction or reconstruction not spent in inventoried roadless areas because of the prohibitions would be shifted to other high-priority roads to meet health, safety, and environmental protection and mission needs.

2001 ROADLESS RULE ALTERNATIVE

The effect of implementing the national prohibitions outlined in this alternative is eliminating approximately 55 miles of road development (construction, reconstruction, and temporary roads) over the next five years projected with existing Forest Plan allocations.

Prohibiting new roads for timber cutting would prevent any construction activities that would result in adding road miles in inventoried roadless areas. The prohibition on reconstruction would prevent any construction activities that would result in improving or relocating an existing road in inventoried roadless areas. In general, improvements include expanding a road's design capacity allowing it to accommodate more traffic; changing its design function, for example, from that of a low standard single use road to a primary access route for low clearance passenger cars. Relocation means physically moving all or part of an existing road to a new location and includes decommissioning the old section of road. See the Glossary for specific definitions. Temporary road construction involves building short term road access for a timber sale or permitted activity and requires decommissioning the road at the conclusion of the contract or permit.

The 2001 Roadless Rule Alternative includes exceptions to the prohibitions on road construction and reconstruction when:

- A road is needed to protect public health and safety in cases of imminent threat of flood, fire, or other catastrophic event that, without intervention, would cause the loss of life or property;
- A road is needed pursuant to reserved or outstanding rights or as provided for by statute or treaty; or
- Road realignment is needed to prevent irretrievable resource damage by an existing classified road that is deemed essential for public or private access, management, or public health and safety, and such damage cannot be corrected by maintenance;
- A road is needed to conduct a proposed action under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) or to conduct a natural resource restoration action under CERCLA, section 311 of the Clean Water Act, or Oil Pollution Act.

Any roads constructed or reconstructed because of the exceptions are subject to other laws, regulations, and policies governing these activities. In general, road construction or reconstruction done under one of the above exceptions would be the minimum needed to meet the required short-term access need, if possible, and would be designed to minimize and mitigate impacts on an IRA's roadless character.

Approximately 5 miles of roads planned in IRAs (combined construction and reconstruction over the next five years) would qualify under the exceptions. This represents an average annual road program of about 1 mile per year in IRAs under the 2001 Roadless Rule.

EXISTING PLANS ALTERNATIVE

An estimated 60 miles of road (including forest roads, public roads not under Forest Service jurisdiction, private roads, and temporary roads) are planned to be constructed or reconstructed in inventoried roadless areas over the next 5 years under the existing Forest Plan land allocations. Table II shows the miles of NFS road construction and reconstruction (including temporary roads) in IRAs, required to support the projected timber cutting. Most of the planned timber-related roads are single-purpose roads closed to traffic between uses or are short-term (temporary) roads that would be decommissioned. Temporary roads would typically be decommissioned within 1 year after use.

Closing or decommissioning roads after use would reduce the long-term effects on the environment and roadless character of the IRAs. On the other hand, while temporary road construction must comply with law, regulation, and policy, in general, temporary roads are not designed or constructed to the same standards as classified roads and are not intended to be part of the National Forest System Transportation System. The results can be a higher risk of environmental impacts over the short run. The effects of the road construction and reconstruction are described for the alternatives for each resource later in this chapter.

STATE'S PETITION ALTERNATIVE

Three management themes are more restrictive than the 2001 Roadless Rule (Wild Land Recreation, Primitive, and Special Areas of Historic and Tribal Significance). These themes would not allow the seven exceptions allowed in the 2001 Roadless Rules. The Backcountry/Restoration theme applies the same seven exceptions as the 2001 Roadless Rule. The General Forest Theme is consistent with the Forest Plan land allocations which were superseded by the 2001 Roadless Rule. Refer to Table II for a side-by-side comparison of road development trends for each alternative.

Travel management is currently being addressed for motorized travel through the route designation process on all National Forest in Idaho and is beyond the scope of this EIS.

Table II. Projected timber cutting, road construction/reconstruction by alternative within IRAs.

Projected activities	2001 rule	existing plans	state petition
timber harvest yearly average (MMBF)	0.5	14	4
timber harvest yearly average (acres)	100	2,800	800
road construction/reconstruction yearly average (miles) - timber harvest	0	11	3
road construction/reconstruction yearly average (miles) - other than timber harvest	1	1	1
road decommissioning yearly average (miles)	1	4	3

CONCLUSIONS (PART OF ENVIRONMENTAL CONSEQUENCES)

- Approximately 33,800 miles NFS roads were constructed in the state of Idaho primarily to support timber harvest on NFS lands and the miles of roads constructed has declined as the timber program as declined.
- Today recreation use accounts for a majority of the use on NFS roads.
- The State Petition would result in approximately 10 miles per year less road construction and reconstruction for all jurisdictions over the next five years than the Existing Plans.
- Existing access will be affected little as a result of the State Petition prohibitions on road construction and reconstruction in IRAs. Currently less than 5% of the 9.3 million acres in IRAs are have roads. The long term road system will increase by approximately 1 mile per year under the State Petition within IRAs.
- Long term the State Petition will have little effect on availability of access or rural access in general. The State Petition would result in about 15 miles of new long term road over the planning horizon of 15 years. This increase represents 0.02% of the rural road system in the State of Idaho.
- Long term, this petition when taken in combination with other national policies and regional planning efforts could result in fewer roads on NFS lands and more acres being managed for their roadless character. Neither will happen as a direct result of implementing this petition.
- If the demand for geothermal energy development makes development in the IRAs economically attractive, there may be pressure to reconsider the tradeoffs between roadless values and clean energy production. Road development required to

develop geothermal wells could be greater than roading projections associated with vegetation management. There is currently no trend information available to reasonably predict a surge in geothermal activity.

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GLOSSARY

Access Rights. A privilege or right of a person or entity to pass over or use another person's or entity's travel way. (36 CFR 212.1, FSM 5460.5 – Rights of Way Acquisition, FSM 7700 – Transportation System)

Annual Maintenance. Work performed to maintain serviceability, or repair failures during the year in which they occur. Includes preventive and/or cyclic maintenance performed in the year in which it is scheduled to occur. Unscheduled or catastrophic failures of components or assets may need to be repaired as a part of annual maintenance. (Financial Health – Common Definitions for Maintenance and Construction Terms, July 22, 1998)

Arterial Road. A forest road that provides service to large land areas and usually connects with other arterial roads or public highways. (FSH 7709.54 - Forest Transportation Terminology Handbook, no longer in print)

Capital Improvement. The construction, installation, or assembly of a new fixed asset, or the significant alteration, expansion, or extension of an existing fixed asset to accommodate a change of purpose. (Financial Health – Common Definitions for Maintenance and Construction Terms, July 22, 1998)

Classified Road. *(Term is no longer in use.)* Road wholly or partially within or adjacent to National Forest System lands that are determined to be needed for long-term motor vehicle access, including State roads, county roads, privately owned roads, National Forest System roads, and other roads authorized by the Forest Service. (36 CFR 212.1, FSM 7705 – Transportation System)

Collector Road. A forest road that serves smaller land areas than an arterial road. Usually connects forest arterial roads to local forest roads or terminal. (FSH 7709.54 – Forest Transportation Terminology Handbook, no longer in print)

Construction (new). The erection, construction, installation, or assembly of a new fixed asset. (Financial Health – Common Definitions for Maintenance and Construction Terms, July 22, 1998)

Critical Need. A requirement that addresses a serious threat to public health or safety, a natural resource, or the ability to carry out the mission of the organization. (Financial Health – Common Definitions for Maintenance and Construction Terms, July 22, 1998)

Decommission. Demolition, dismantling, removal, obliteration and/or disposal of a deteriorated or otherwise unneeded asset or component, including necessary cleanup work. This action eliminates the deferred maintenance needs for the fixed asset. Portions of an asset or component may remain if they do not cause problems nor require maintenance. (Financial Health – Common Definitions for Maintenance and Construction Terms, July 22, 1998)

Deferred Maintenance. Maintenance that was not performed when it should have been or when it was scheduled and which, therefore, was put off or delayed for a future period. When allowed to accumulate without limits or consideration of useful life, deferred maintenance leads to deterioration of performance, increased costs to repair, and decrease in asset value. Deferred maintenance needs may be categorized as critical or noncritical at any point in time. Continued deferral of noncritical maintenance will normally result in an increase in critical deferred maintenance. Code compliance (e.g. life safety, ADA, OSHA, environmental, etc.), Forest Plan Direction, Best Management Practices, Biological Evaluations other regulatory or Executive Order compliance requirements, or applicable standards not met on schedule are considered deferred maintenance. (Financial Health – Common Definitions for Maintenance and Construction Terms, July 22, 1998)

Design Vehicle. The vehicle frequently using the road that determines the minimum standard for a particular design element. No single vehicle controls the standards for all the design elements for a road. Determine the maximum and minimum standards from the type and configuration of the vehicles using the road. Analyze each design element to determine which vehicle governs the standard for that element. (FSH 7709.56, Sec 4.1– Road Preconstruction Handbook)

Emergency Need. An urgent maintenance need that may result in injury, illness, or loss of life, natural resource, or property; and must be satisfied immediately. Emergency needs generally require a declaration of emergency or disaster, or a finding by a line officer that an emergency exists. (Financial Health – Common Definitions for Maintenance and Construction Terms, July 22, 1998)

Forest Road or Trail. A road or trail wholly or partly within or adjacent to and serving the National Forest System that the Forest Service determines is necessary for the protection, administration, and utilization of the National Forest System and the use and development of its resources. (36 CFR 212.1)

Forest Highway. A forest road under the jurisdiction of, and maintained by, a public authority and open to public travel. (USC: Title 23, Section 101(a)).

Forest Transportation Atlas. A display of the system of roads, trails, and airfields of an administrative unit. (36 CFR 212.1)

Forest Transportation Facility. A forest road or trail or an airfield that is displayed in a forest transportation atlas, including bridges, culverts, parking lots, marine access facilities, safety devices and other improvements appurtenant to the forest transportation system. (36 CFR 212.1)

Forest Transportation System. The system of National Forest System roads, National Forest System trails, and airfields on National Forest System lands. (36 CFR 212.1)

Health and Safety Need. A requirement that addresses a threat to human safety and health (e.g. violations of National Fire Protection Association 101 Life Safety Code or appropriate Health Code) that requires immediate interim abatement and/or long-term

permanent abatement. (Financial Health – Common Definitions for Maintenance and Construction Terms, July 22, 1998)

Jurisdiction. The legal right to control or regulate use of a transportation facility. Jurisdiction requires authority, but not necessarily ownership. The authority to construct or maintain a road may be derived from fee title, an easement, or some other similar method. (FSM 7705 – Transportation System)

Local Road. A forest road that connects terminal facilities with forest collector, forest arterial or public highways. Usually forest local roads are single purpose transportation facilities. (FSH 7709.54 – Forest Transportation Terminology Handbook, no longer in print)

Maintenance. The preservation of the entire highway, including surface, shoulders, roadsides, structures and such traffic-control devices as are necessary for its safe and efficient utilization. (USC: Title 23, Section 101(a)).

Maintenance. The upkeep of the entire forest development transportation facility including surface and shoulders, parking and side areas, structures, and such traffic-control devices as are necessary for its safe and efficient utilization. (36 CFR 212.2(i)).

Maintenance. The act of keeping fixed assets in acceptable condition. It includes preventive maintenance normal repairs; replacement of parts and structural components, and other activities needed to preserve a fixed asset so that it continues to provide acceptable service and achieves its expected life. Maintenance excludes activities aimed at expanding the capacity of an asset or otherwise upgrading it to serve needs different from, or significantly greater than those originally intended. Maintenance includes work needed to meet laws, regulations, codes, and other legal direction as long as the original intent or purpose of the fixed asset is not changed. (Financial Health – Common Definitions for Maintenance and Construction Terms, July 22, 1998)

Maintenance Level. Defines the level of service provided by, and maintenance required for, a specific road, consistent with road management objectives and maintenance criteria. (FSH 7709.58, Sec 12.3 – Transportation System Maintenance Handbook)

Maintenance Level 1: Assigned to intermittent service roads during the time they are closed to vehicular traffic. The closure period must exceed 1 year. Basic custodial maintenance is performed to keep damage to adjacent resource to an acceptable level and to perpetuate the road to facilitate future management activities. Emphasis is normally given to maintaining drainage facilities and runoff patterns. Planned road deterioration may occur at this level. Appropriate traffic management strategies are “prohibit” and “eliminate”. Roads receiving level 1 maintenance may be of any type, class or construction standard, and may be managed at any other maintenance level during the time they are open for traffic. However, while being maintained at level 1,

they are closed to vehicular traffic, but may be open and suitable for non-motorized uses.

Maintenance Level 2: Assigned to roads open for use by high clearance vehicles. Passenger car traffic is not a consideration. Traffic is normally minor, usually consisting of one or a combination of administrative, permitted, dispersed recreation, or other specialized uses. Log haul may occur at this level. Appropriate traffic management strategies are either (1) discourage or prohibit passenger cars or (2) accept or discourage high clearance vehicles.

Maintenance Level 3: Assigned to roads open and maintained for travel by a prudent driver in a standard passenger car. User comfort and convenience are not considered priorities. Roads in this maintenance level are typically low speed, single lane with turnouts and spot surfacing. Some roads may be fully surfaced with either native or processed material. Appropriate traffic management strategies are either “encourage” or “accept.” “Discourage” or “prohibit” strategies may be employed for certain classes of vehicles or users.

Maintenance Level 4: Assigned to roads that provide a moderate degree of user comfort and convenience at moderate travel speeds. Most roads are double lane and aggregate surfaced. However, some roads may be single lane. Some roads may be paved and/or dust abated. The most appropriate traffic management strategy is “encourage.” However, the “prohibit” strategy may apply to specific classes of vehicles or users at certain times.

Maintenance Level 5: Assigned to roads that provide a high degree of user comfort and convenience. Normally, roads are double-lane, paved facilities. Some may be aggregate surfaced and dust abated. The appropriate traffic management strategy is “encourage.”

Mission Need. A requirement that addresses a threat or risk to carrying out the mission of the organization. Needs related to administration and providing services (transportation, recreation, grazing, etc.). Needs not covered by health and safety or natural resource protection. (Financial Health – Common Definitions for Maintenance and Construction Terms, July 22, 1998)

Motor Vehicle. Any vehicle which is self-propelled, other than; (1) A vehicle operated on rails; and (2) Any wheelchair or mobility device, including one that is batteru-powered, that is designed solely for use by a mobility-impaired person for locomotion, and that is suitable for use in an indoor pedestrian area.

National Forest System Road. A forest road other than a road which has been authorized by a legally documented right-of-way held by a State, county, or other public road authority. (36 CFR 212.1)

National Forest System Trail. A forest trail other than a trail which has been authorized by a legally documented right-of-way held by a State, county, or other public road authority. (36 CFR 212.1)

New Construction. The erection, construction, installation, or assembly of a new fixed asset. (Financial Health – Common Definitions for Maintenance and Construction Terms, July 22, 1998)

New Road Construction. Activity that results in the addition of forest classified or temporary road miles. (36 CFR 212.1, FSM 7705 – Transportation System)

Noncritical Need. A requirement that addresses potential risk to public or employee safety or health, compliance with codes, standards, regulations etc., or needs that address potential adverse consequences to natural resources or mission accomplishment. (Financial Health – Common Definitions for Maintenance and Construction Terms, July 22, 1998)

Objective Maintenance Level. The maintenance level to be assigned at a future date considering future road management objectives, traffic needs, budget constraints, and environmental concerns. The objective maintenance level may be the same as, or higher or lower than, the operational maintenance level. (FSH 7709.58, Sec12.3 – Transportation System Maintenance Handbook)

Open for Public Travel. The road section is available and passable by four-wheeled standard passenger cars, and open to the general public for use without restrictive gates, prohibitive signs, or regulation other than restrictions based on size, weight or class of registration, except during scheduled periods, extreme weather or emergency conditions. (23 CFR 460.2(c)).

Operational Maintenance Level. The maintenance level currently assigned to a road considering today's needs, road condition, budget constraints, and environmental concerns. It defines the level to which the road is currently being maintained. (FSH 7709.58, Sec 12.3 – Transportation System Maintenance Handbook)

Private Road. A road under private ownership authorized by easement to a private party, or a road which provides access pursuant to a reserved or private right. (FS-643, Roads Analysis; Informing Decisions About Managing the National Forest Transportation System, August 1999.).

Public Authority. A Federal, State, county, town or township, Indian tribe, municipal or other local government or instrumentality thereof, with authority to finance, build, operate or maintain toll or toll-free highway facilities. (23 CFR 460.2(b))

Public Road. Any road or street under the jurisdiction of and maintained by a public authority and open to public travel. (23 U.S.C. 101(a), 23 CFR 460.2(a), FSM 7705 – Transportation System)

Resource Protection Need. A requirement that addresses a threat or risk of damage, obstruction, or negative impact to a natural resource. (Financial Health – Common Definitions for Maintenance and Construction Terms, July 22, 1998)

Road. A motor vehicle route over 50 inches wide, unless designated and managed as a trail. (36 CFR 212.1)

Road Construction and Reconstruction. Supervising, inspecting, actual building, and incurrence of all costs incidental to the construction or reconstruction of a road.

Road Decommissioning. Activities that result in the stabilization and restoration of unneeded roads to a more natural state. (36 CFR 212.1, FSM 7705 – Transportation System)

Road Improvement. Activity that results in an increase of an existing road's traffic service level, expands its capacity, or changes its original design function. (FSM 7705 – Transportation System)

Road Maintenance. The ongoing upkeep of a road necessary to retain or restore the road to the approved road management objective. (FSM 7705 – Transportation System)

Road Management Objectives (RMO). Defines the intended purpose of an individual road based on management area direction and access management objectives. Road management objectives contain design criteria, operation criteria, and maintenance criteria. (FSH 7709.55, Sec 33 – Transportation Planning Handbook)

Road Realignment. Activity that results in a new location of an existing road or portions of an existing road and treatment of the old roadway. (FSM 7705 – Transportation System)

Road Reconstruction. Activity that results in a Road Improvement or Road Realignment of an existing classified road. (FSM 7700 – Transportation System)

Service Life. The length of time that a facility is expected to provide a specified service. (FSH 7709.56b, Sec 05 – Transportation Structures Handbook)

State. Any one of the 50 states, the District of Columbia, Puerto Rico, the Virgin Islands, Guam, and American Samoa. (23 CFR 460.2(e))

Subject to the Highway Safety Act. National Forest System roads that are open to use by the public for standard passenger cars. This includes roads with access restricted on a seasonal basis and roads closed during extreme weather conditions or for emergencies, but which are otherwise open for general public use. (FSM 7705 – Transportation System)

Temporary Road or Trail. A road or trail necessary for emergency operations or authorized by contract, permit, lease or other written authorization that is not a forest road or trail and that is not included in a forest transportation atlas. (36 CFR 212.1)

Trail. A route 50 inches or less in width or a route over 50 inches wide that is identified and managed as a trail. (36 CFR 212.1)

Terminal Facility. A transfer point between the transportation network and resources served or between different transportation modes. Typical terminal facilities are vehicle parking areas, boat ramps and docks, trailheads, log transfer facilities, airfields and heliports (old FSH 7709.54 (old Terminology Handbook, no longer in print).

Traffic Service Level. Describes the significant characteristics and operating conditions of a road. (FSH 7709.56, Ch 4 – Road Preconstruction Handbook, FSM 7705 – Transportation System)

Traveled Way. The portion of the roadway used for the movement of vehicles; not including turnouts, exclusive of shoulders and auxiliary lanes. (EM 7720-100LL, Section 102.)

Unauthorized Road or Trail. A road or trail that is not a forest road or trail or temporary road or trail and that is not included in a forest transportation atlas. (36 CFR 212.1)

Unclassified Roads. (*Term is no longer used.*) Roads on National Forest System lands that are not managed as part of the forest transportation system, such as unplanned roads, abandoned travelways, and off-road vehicle tracks that have not been designated and managed as a trail; and those roads that were once under permit or other authorization and were not decommissioned upon the termination of the authorization (36 CFR 212.1, FSM 7705 – Transportation System). Unclassified roads are categorized into two types and recorded in the SYSTEM linear event. The two types are:

UND – UNDETERMINED – Roads where long term purpose and need has yet to be determined

NOT – NOT NEEDED – Roads not needed for long term management of national forest resources as determined through an appropriate planning document.

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